

WHAT IS CLAIMED IS:

1. A method of establishing a wireless communications link, the method comprising:
  - (a) determining through a first short-range communications link of a first type whether a remote device is capable of supporting a short-range communications link of a second type; and
  - (b) exchanging information with the remote device across the first communications link to establish a second short-range communications link, wherein the second short-range communications link is of the second type.
2. The method of claim 1, further comprising directing the remote device to start communicating across the second short-range wireless communications link.
3. The method of claim 2, wherein the first short-range communications link is a Bluetooth link and the second short-range communications link is an ultra wideband (UWB) link, said directing step comprising:
  - sending a Bluetooth link manager protocol (LMP) message to the remote device, the LMP message adapted to direct the remote device to begin accepting transmissions across the UWB link.
4. The method of claim 3, wherein the LMP message includes one or more UWB parameters.
5. The method of claim 1, further comprising communicating with the remote device across the second short-range communications link.
6. The method of claim 1, wherein the first communications link is a Bluetooth link.
7. The method of claim 1, wherein the second communications link is an ultra wideband (UWB) link.

8. The method of claim 1, wherein the first communications link is a Bluetooth link and the second communications link is an ultra wideband (UWB) link.

9. The method of claim 8, wherein the UWB link employs a slot timing structure of the Bluetooth link.

10. The method of claim 1, further comprising establishing the first short-range communications link with the remote device.

11. The method of claim 10, wherein said first communications link is a Bluetooth link, said establishing step comprising:

performing a Bluetooth paging process with the remote device.

12. The method of claim 1, wherein step (b) comprises:

(1) sending a request to the remote device across the first communications link, the request inquiring whether the remote device desires to establish the second communications link; and

(2) receiving an acknowledgement from the remote device through the first communications link, the acknowledgement indicating that the remote device desires to establish the second communications link.

13. The method of claim 12, wherein the first short-range communications link is a Bluetooth link and the second short-range communications link is an ultra wideband (UWB) link, said step

(1) comprising:

sending a Bluetooth link manager protocol (LMP) message to the remote device, the LMP message adapted to inquire whether the remote device desires to establish the UWB link.

14. The method of claim 1, wherein the first short-range communications link is a Bluetooth link, step (b) comprising:

sending a Bluetooth link manager protocol (LMP) message to the remote device requesting packet type table including information identifying one or more supported links and packet types.

15. The method of claim 14, wherein the second short-range communications link is an ultra wideband (UWB) link

16. The method of claim 15, wherein the second short-range communications link is a high rate (HR) link.

17. A wireless communications device, comprising:

a first segment adapted to exchange information with a remote device across a first short-range wireless communications link of a first type;

a host coupled to the first segment, the host adapted to set up a second short-range wireless communications link of a second type by causing the first segment to exchange information with the remote device across the first communications link, the information including one or more parameters of the second short-range communications link; and

a second segment adapted to exchange information with the remote device across the second communications link.

18. The wireless communications device of claim 17, wherein the first communications link is a Bluetooth link.

19. The wireless communications device of claim 17, wherein the second communications link is an ultra wideband (UWB) link.

20. The wireless communications device of claim 17, wherein the first communications link is a Bluetooth link and the second communications link is an ultra wideband (UWB) link.

21. The wireless communications device of claim 20, wherein the UWB link employs a slot timing structure of the Bluetooth link.

22. The wireless communications device of claim 20, wherein the first segment includes a link manager adapted to exchange one or more Bluetooth link manager protocol (LMP) messages with the remote device.

23. The wireless communications device of claim 22, wherein the one or more LMP messages includes an LMP message adapted to direct the remote device to begin accepting transmissions across the UWB link.

24. The wireless communications device of claim 23, wherein the LMP message includes one or more UWB parameters.

25. The wireless communications device of claim 22, wherein the one or more LMP messages includes an LMP message adapted to inquire whether the remote device desires to establish the UWB link.

26. The wireless communications device of claim 22, wherein the one or more LMP messages includes an LMP message adapted to determine whether the remote device is capable of supporting the UWB link.

27. The wireless communications device of claim 26, wherein the one or more LMP messages includes a packet type table request message.

28. A system for establishing a wireless communications link, comprising:  
means for determining through a first short-range communications link of a first type whether a remote device is capable of supporting a short-range communications link of a second type; and

means for exchanging information with the remote device across the first communications link to establish a second short-range communications link, wherein the second short-range communications link is of the second type.

29. A computer program product comprising a computer useable medium having computer program logic recorded thereon for enabling a processor in a computer system to establish a wireless communications link, the computer program logic comprising:

program code for enabling the processor to determine through a first short-range communications link of a first type whether a remote device is capable of supporting a short-range communications link of a second type; and

program code for enabling the processor to exchange information with the remote device across the first communications link to establish a second short-range communications link, wherein the second short-range communications link is of the second type.